

696.1

Sewerage

Durham



Illustrations
OF
The Durham System
OF
House Drainage.
2-20-84.

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THE
Durham House Drainage Company

OF NEW YORK,

MANUFACTURING THE DURHAM PATENT SYSTEM OF

SCREW JOINT
IRON HOUSE DRAINAGE

CAPITAL, - - \$200,000.

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RUDOLPH HERING, M. Am. Soc. C. E.
DANIEL P. BRUNER, M. Am. Soc. C. E.
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RICHARD PRESCOTT, M. E.
85 State Street.

PHILADELPHIA,
114 S. Sixth St.
(Ledger Building.)

WASHINGTON,
GLENN BROWN,
607 Louisiana Avenue.

THE
House Drainage (Durham's System) Corporation,

LIMITED.

CAPITAL, - - £100,020.

DIRECTORS:

THE HON. W. F. B. MASSEY MAINWARING, 30 Grosvenor Place, S. W.

THE HON. FREDERICK LAWLESS, St. James's Club, Piccadilly, W.

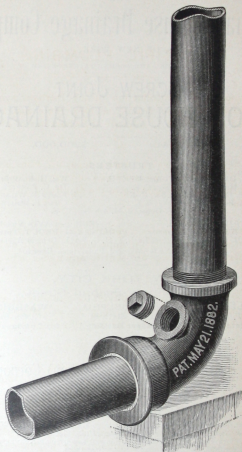
COLONEL THE HON. W. P. TALBOT, Cromwell Road, South Kensington, S.W.

HENRY EDMUNDS, Esq., St. Julian's Road, Streatham.

OFFICES:

2, VICTORIA MANSIONS, WESTMINSTER, S. W.
LONDON.





SOIL PIPE ELBOW, with 3 inch hand-hole, for connecting a wrought iron soil pipe with a cast iron drain pipe. The soil pipes stand up rigidly from this fitting, and are not fastened to the building support. Consequently no joints are broken by settlement of wall.

SCIENTIFIC PLUMBING.

Previous to the introduction of the Durham system of construction of house drains, in 1879, there had been no organized effort made to improve the character of plumbing work.

The new system was an entire departure from plumbing practice. Employing new materials and new methods, it has elevated the trade of plumbing to the dignity of an engineering business.

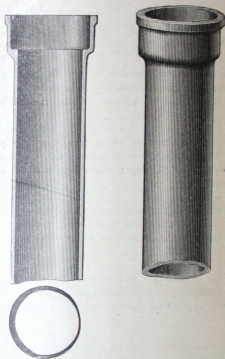
The Durham Companies invariably construct all work with their own workmen, under the supervision of their own engineers. Expert mechanics are sent to any distance to execute contracts.

All work is of standard quality, fully guaranteed, and furnished at an ordinary manufacturing profit, at a cost no greater than is asked for the best class of old style plumbing.

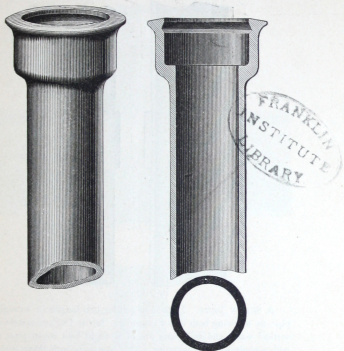
The Durham system will be constructed in old or new buildings, including or excluding the balance of the plumbing work, fixtures and gas fitting, as may be desired.

The Company's engineers or agents will promptly answer requests for appointments for consultation at office or residence.

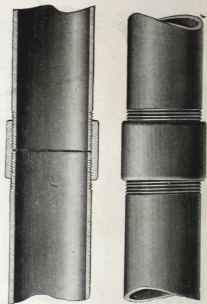
The Durham system can be cheaply introduced into old buildings.



PLUMBER'S CAST IRON SOIL PIPE: made in 5 foot lengths. Two qualities manufactured, *regular* and *extra heavy*. The *regular* pipe is considered absolutely worthless by the best plumbers; about 30 per cent of the *extra heavy* fails under test. Plumber's soil pipe is put on the market just as it comes from the foundry, without examination or test. Quite commonly all the metal will be found on one side of the pipe, leaving only a film on the other. The hub of the pipe is not large or strong enough to permit a *thoroughly caulked* lead joint to be made.

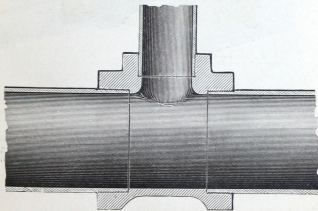
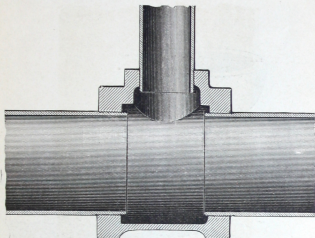


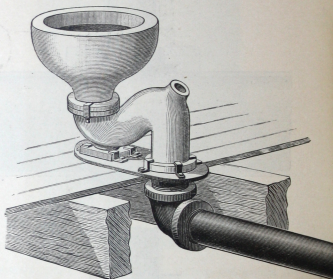
CAST IRON GAS PIPE, used in the Durham system for underground drains. Made in lengths of 12 feet; $\frac{3}{8}$ inch thick; coated for protection against rust. All pipe tested by hydraulic pressure, and manufactured for the use of gas companies by such reputable firms as R. D. Wood & Co., Philadelphia; A. H. McNeal, Burlington, N. J., and Dennis Long & Co., Louisville, Ky. The hub of the pipe is over one inch thick, sufficient to resist any possible pressure in caulking the lead joint.



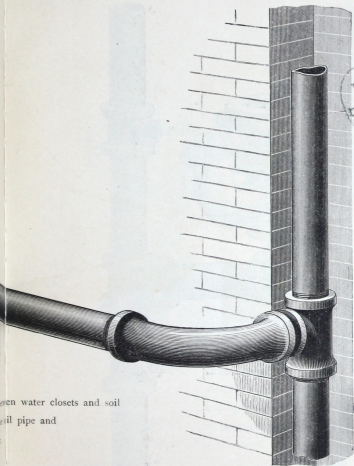
A SCREW JOINT. Method of joining two lengths of wrought iron pipe, by screwing both into a coupling. In the Durham system all the vertical waste and soil pipes are of wrought iron steam pipe, coated with asphalt, screwed together. This pipe is $\frac{1}{4}$ inch thick, in lengths of 20 feet, perfect in every particular, and tested to a pressure of 500 pounds per square inch of surface. These pipes stand upright from the drain, and are independent of the building for support. This method of construction makes the drainage system invulnerable, and the joints *permanently* steam-tight.

The engravings on page 7 illustrate the difference between steam fittings and those used in the Durham system: the former have an interior depression which unfits them for use in a line of drain pipe; the latter have a shoulder, securing a flush inner surface.

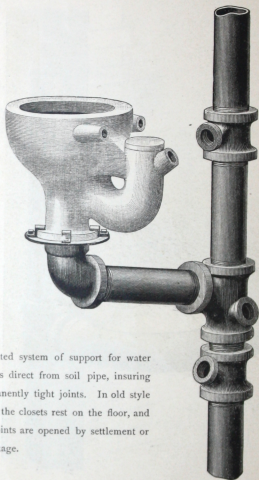




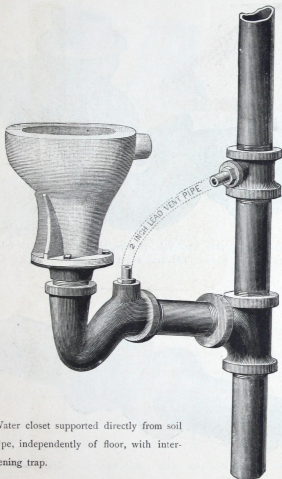
Patented method of obtaining a permanently gas-tight connection between
pipes, where the former are at some distance from the latter,
which require to be supported upon the floor.



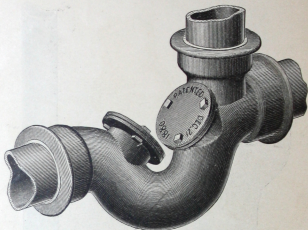
open water closets and soil
pipe and



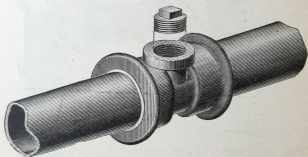
Patented system of support for water closets direct from soil pipe, insuring permanently tight joints. In old style work the closets rest on the floor, and the joints are opened by settlement or shrinkage.



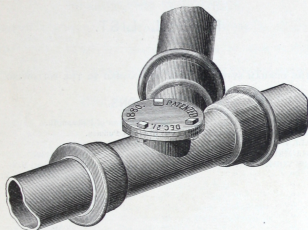
Water closet supported directly from soil pipe, independently of floor, with intervening trap.



Cast iron, double hand-hole, running trap, with fresh air inlet.
This trap never fouls.



Tee for cast iron pipe, with 3 inch hand-hole, closed by a plug.



Cast iron Y branch with 4 inch hand-hole for removing obstructions.

THE foregoing illustrations represent a limited number of the SPECIAL fittings used in the Durham system. These fittings are remarkable for INTERIOR SMOOTHNESS and excellent mechanical finish. The total number of them is nearly two hundred, and they are manufactured solely by the Durham Companies, for their own use.

PARTIAL LIST.

THE DURHAM SYSTEM HAS BEEN FURNISHED TO THE FOLLOWING

CORPORATIONS.

PULLMAN'S PALACE CAR CO.: The entire town of Pullman, Ill.

ALLEN PAPER CAR WHEEL CO.: Shops at Pullman.

YALE LOCK MANUFACTURING CO.: Stamford, Conn.

COLUMBIA COLLEGE: School of Mines: Mr. C. C. Haight, Architect.

NEW YORK, WEST SHORE & BUFFALO R'Y CO.: Depot, Syracuse, N.Y.

“ “ “ “ “ Canajoharie, N. Y.

11	12	13	14	15	Pt. Jackson, N.Y.
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11	11	11	11	11	Fultonville, N.Y.
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11	11	11	11	11	Canastota, N.Y.
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11	11	11	11	11	Mohawk, N.Y.
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44	"	44	44	44	Frankfort, N. Y.
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11	11	11	11	11	Cornwall, N.Y.
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WEST SHORE & ONTARIO TERMINAL CO.: Terminal Station,
Weehawken, N. J.

THE CITY OF CHICAGO: New City Hall.

CHICAGO, BURLINGTON & QUINCY R. R. CO.: Office Building.

ATCHISON, TOPEKA & SANTA FÉ R. R. CO.: Office Building and Depots.

SINGER SEWING MACHINE CO.: Chicago Office.

NORTH CHICAGO CITY RAILWAY: Offices.

FIRST NATIONAL BANK, CHICAGO: Office Building.

HOTELS.

HOFFMAN HOUSE: New York: New Extension: Mr. John B. Snook, Architect.

HOTEL FLORENCE: Pullman, Ill.: Mr. S. S. Beman. Architect.

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CHARLES BUEK & CO.: Six Residences: Cor. Madison Ave. and 60th St.

MESSRS. FARLEY & SON: Eight Residences; 80th St.; Messrs. Thom & Wilson. Architects.

JOHN C. GOODRIDGE, JR., ESQ.: 113 East 25th St.

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A. J. DREXEL, Esq.: 39th and Locust St.; Mr. T. Roney Williamson, Architect.

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Mr. W. B. Tuthill, Architect.
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- HENRY JOHNSON, Esq.: Residence, Muncy, Pa.
- JOSEPH CUMMINGS, Esq.: Residence, Rutherford, N. J.
- R. C. LUTHER, Esq.: Residence, Pottsville, Pa.
- S. J. M. McCARRELL, Esq.: Residence, Harrisburg, Pa.
- HENRY R. KIBBE, Esq.: Residence, Somers, Conn.; Mr. E. C. Gardner,
Architect.
- G. CLINTON GARDNER, Esq., President Buffalo, New York & Philadelphia
R. R. Co.: Residence, Greenfield, Mass.; Messrs. Wilson Brothers & Co.,
Architects.
- MESSRS. D. GOFF & SONS: Cotton Mill, Pawtucket, R. I.
- FANE WAREHOUSE: 22d St. and Broadway, N.Y.; Mr. C. C. Haight, Architect.
- MUHLENBERG HOSPITAL: Plainfield, N. J.; Charles H. Smith, Architect.

CHEAPER THAN OLD STYLE WORK.

D. GOFF AND SONS,

Pawtucket, R. I.,

December 12th, 1883. }

DURHAM HOUSE DRAINAGE CO.:

Gentlemen,—

Your favor of 6th inst. came duly to hand, enclosing detailed statement of work done for us, and bill for the same. We now hand you herewith check to balance the account.

We feel satisfied that cast iron soil pipe put up by plumbers would have cost us more money; and whenever we have opportunity we shall cheerfully bear testimony to the quality and character of your work.

Yours truly,

D. GOFF & SONS.